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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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			EXAMINER PATTERSON, RASHAN OMAR	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/020,229

Applicant(s)

SHISHIDO, KAZUNARI

Examiner

Rashan O. Patterson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-31 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 31 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 31 is drawn to a program that merely manipulates data or an abstract idea, or merely solves a mathematical problem without limitation to a practical application in the technological arts.

In order for a claimed invention to accomplish a practical application it must produce a "useful, concrete and tangible result" *State Street*, 143 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). A practical application can be achieved through recitation of a "physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan", or "limited to a practical application within the technological arts" (MPEP 2106 IVB2(b)). Currently, claim 16 meets neither of these criteria. In order for the claimed process to produce "useful, concrete and tangible" result, recitation of one of the following elements is suggested:

- i. The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2(b)(i)).

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- ii. A recitation of a physical transformations outside the computer, for example in the form of pre of post computer processing activity) MPEP 2106 IVB2(b)(i)).
- iii. A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2 (b)(ii)).

Note: In order for computer programs to be considered statutory, they must be contained on a computer readable medium.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-3, 5, 9, 15, 16, 17, 19, 23, 29, 30, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Okimoto et al. (US 6449055 B1).

Regarding claims 1 and 15, Okimoto discloses a print system (**Fig.1**) in which a printing apparatus (6) prints by using print data which is sent by a printer driver (30) which is made operative by an information processing apparatus (4) wherein said printer driver (30) comprises: information adding means for adding structure information to said print data to said print data which is sent; and information sending means for sending said added structure information to said printing apparatus, and said print data on the basis of said received structure information (**Col. 5 lines 36-40**).

Regarding claims 2 and 16, Okimoto discloses a print system, wherein the information obtained by said printer driver (30) during generation of said print data is set to said structure information (**Col. 8 Lines 28-30**).

Regarding claims 3 and 17, Okimoto disclose the print system wherein said printer driver (30) analyzes said print data before said print data is sent to said printing apparatus, and said analyzed information is set to said structure information (**Col. 5 lines 36-40; Col 8 lines 28-30**).

Regarding claims 5 and 19, Okimoto discloses a print system wherein when said structure information is not sent, said printing apparatus analyzes said print data and prints (**Col. 8 lines 19-24**).

Regarding claims 9 and 23, Okimoto discloses a print system wherein said printer driver (30) can set a designated area of said structure information which is added to said printer data on an arbitrary unit basis (**Col. 5 lines 36-40**).

Regarding claims 29 and 31 Okimoto discloses an information processing apparatus (4) for making a printer driver operative so as to generate print data and

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sending said generated print data to a printing apparatus, comprising: information adding means for adding structure information of said print data to the print data which is sent by said printer driver (30); and information sending means for sending said added structure information to said printing apparatus, wherein said printing apparatus is allowed to execute a printing process of said print data on the basis of said sent structure information (**Col. 5 lines 36-46; Col 8 lines 28-30**).

Regarding claim 30 Okimoto discloses a printing apparatus for printing by using print data which is sent by a print driver which is made operative by an information processing apparatus comprising: information receiving means for receiving structure information added to the print data which is sent by said printer driver; and print processing means for performing a printing process of said print data on the basis of said received structure information (**Col. 5 lines 36-46; Col 8 lines 28-30**).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okimoto (US 6449055 B1) in view of Booth et al (US 6247786 B1).

Regarding claims 4 and 18 Okimoto discloses the system wherein printing

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apparatus (6) analyzes said structure information sent by printer driver (30) (**Col. 5 lines 36-43**).

Okimoto does not disclose the system wherein the printing apparatus determines the number of nozzles which are used in the printing process, and executes the printing process by using nozzles of said determined number of nozzles.

Booth et al. discloses the system (Fig. 1) wherein the printing apparatus (2) determines the number of nozzles (14) which are used in the printing process, and executes the printing process by using nozzles (14) of said determined number of nozzles (14) (**Col. 5 line 64-Col 6 line 2**).

Okimoto and Booth et al. are combinable because they both incorporate a printing apparatus.

It would have been obvious at the time of the invention for one skilled in the art to combine Okimoto with Booth et al.

The motivation to combine Okimoto and Booth et al. would be to have the system wherein the printing apparatus determines the number of nozzles which are used in the printing process, and executes the printing process by using nozzles of said determined number of nozzles as taught by Booth et al in Col. 5 line 64- Col 6 line 2.

Therefore it would have been obvious to combining Okimoto and Booth et al. to obtain the invention as specified in claims 4 and 18.

6. Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okimoto (US 6449055 B1) in view of Kawamoto et al. (US 6120197).

Regarding claims 6 and 20 Okimoto discloses the system wherein containing structure information (30) and said printing apparatus prints on the basis of said structure information. **(Col. 5 lines 36-43)**.

Okimoto does not disclose the system wherein said structure information includes at least either information showing whether the print data which is subsequently printed is color data or monochrome data or information showing whether said color data and said monochrome data are adjacent to each other or not.

Kawamoto et al. discloses the system (Fig. 1) wherein information includes at least either information showing whether the print data which is subsequently printed is color data or monochrome data or information showing whether said color data and said monochrome data are adjacent to each other or not **(Col. 8 lines 40-59)**.

Okimoto and Kawamoto et al. are combinable because they both incorporate a printing apparatus.

It would have been obvious at the time of the invention for one skilled in the art to combine Okimoto with Kawamoto et al.

The motivation to combine Okimoto and Kawamoto et al. would be to have wherein information includes at least either information showing whether the print data which is subsequently printed is color data or monochrome data or information showing whether said color data and said monochrome data are adjacent to each other or not as taught by Kawamoto in Col. 8 lines 40-59.

Therefore it would have been obvious to combining Okimoto and Kawamoto et al. to obtain the invention as specified in claims 6 and 20.

7. Claims 7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okimoto (US 6449055 B1)

Regarding claims 7 and 21 Okimoto discloses the system wherein containing structure information (30) and said printing apparatus prints on the basis of said structure information. (**Col. 5 lines 36-43**).

However Okimoto fails to specifically disclose the system wherein said structure information includes at least either information showing what number line from a present position the print data which is subsequently printed is generated, information showing from what number lines color data starts, and information showing from what line monochrome data starts.

It is notoriously well known that in order for an apparatus to print, positional data specifying where data is supposed to be printed is needed in order to produce an output equivalent to what the user specifies to be printed.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Okimoto's system to include at least either information showing what number line from a present position the print data which is subsequently printed is generated, information showing from what lines color data starts, and information showing from what line monochrome data starts in order to produce an output equivalent to what the user specifies to be printed.

8. Claims 8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okimoto (US 6449055 B1) in view of Myung (US 6053645).

Regarding claims 8 and 22 Okimoto discloses the system wherein containing structure information (30) and said printing apparatus prints on the basis of said structure information. (**Col. 5 lines 36-43**).

Okimoto does not disclose the system wherein said structure information is information regarding right and left edges of the print data which is subsequently printed, and said printing apparatus prints on the basis of said structure information.

Myung discloses the system (Fig. 1) wherein information regarding right and left edges of the print data which is subsequently printed (**Fig 2.; Col 2 lines 43-49; Col. 3 lines 8-28**)

Okimoto and Myung are combinable because they both incorporate a printing apparatus.

It would have been obvious at the time of the invention for one skilled in the art to combine Okimoto with Myung.

The motivation to combine Okimoto and Myung would be to have the system wherein said structure information is information regarding right and left edges of the print data which is subsequently printed, and said printing apparatus prints on the basis of said structure information as taught by Myung in Fig 2, Col 2 lines 43-49, and Col 3 lines 8-28.

Therefore it would have been obvious to combining Okimoto and Myung to obtain the invention as specified in claims 8 and 22.

9. Claims 10-12, and 24 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Okimoto (US 6449055 B1) in view of Canon Kabushiki Kaisha Tokyo (EP 0750251 A1)

Regarding claims 10 and 24, Okimoto does not disclose the system wherein said information sending means sends said structure information to said printing apparatus prior to sending said print data, thereby allowing said printing apparatus to recognize a structure of the print data which is subsequently sent.

Canon Kabushiki Kaisha Tokyo discloses the system (Fig 1) wherein said information sending means (10) sends said structure information to said printing apparatus (20) prior to sending said print data, thereby allowing said printing apparatus to recognize a structure of the print data which is subsequently sent (Col. 12 lines 49-57).

Okimoto and Canon Kabushiki Kaisha Tokyo are combinable because they both incorporate a printing apparatus.

It would have been obvious at the time of the invention for one skilled in the art to combine Okimoto with Canon Kabushiki Kaisha Tokyo.

The motivation to combine Okimoto and Canon Kabushiki Kaisha Tokyo would be to have the system (Fig 1) wherein said information sending means (10) sends said structure information to said printing apparatus (20) prior to sending said print data, thereby allowing said printing apparatus to recognize a structure of the print data which is subsequently sent as taught by Canon Kabushiki Kaisha Tokyo in Col. 12 lines 49-57.

Therefore it would have been obvious to combine Okimoto and Canon Kabushiki Kaisha Tokyo to obtain the invention as specified in claims 10 and 24.

Regarding claim 11, Okimoto does not disclose the system wherein if data of a next page exists during the print of a present page, said printer driver notifies said printing apparatus of such a fact by said information sending means.

Canon Kabushiki Kaisha Tokyo discloses the system (Fig. 1) wherein if data of a next page exists during the print of a present page, said printer driver notifies said printing apparatus of such a fact by said information sending means (**Col 12 lines 49-57**).

Okimoto and Canon Kabushiki Kaisha Tokyo are combinable because they both incorporate a printing apparatus.

It would have been obvious at the time of the invention for one skilled in the art to combine Okimoto with Canon Kabushiki Kaisha Tokyo.

The motivation to combine Okimoto and Canon Kabushiki Kaisha Tokyo would be to have the system (Fig. 1) wherein if data of a next page exists during the print of a present page, said printer driver notifies said printing apparatus of such a fact by said information sending means as taught by Canon Kabushiki Kaisha Tokyo in Col. 12 lines 49-57.

Therefore it would have been obvious to combine Okimoto and Canon Kabushiki Kaisha Tokyo to obtain the invention as specified in claim 11.

Regarding claim 12, Okimoto does not disclose the system wherein if the data of the next page exists during the print of the present page, said printer driver notifies said

printing apparatus of a print mode and a data structure of the next page as said structure information by said information sending means.

Canon Kabushiki Kaisha Tokyo discloses the system (Fig. 1) wherein if the data of the next page exists during the print of the present page, said printer driver notifies said printing apparatus of a print mode and a data structure of the next page as said structure information by said information sending means (**Col 12 lines 49-57**).

Okimoto and Canon Kabushiki Kaisha Tokyo are combinable because they both incorporate a printing apparatus.

It would have been obvious at the time of the invention for one skilled in the art to combine Okimoto with Canon Kabushiki Kaisha Tokyo.

The motivation to combine Okimoto and Canon Kabushiki Kaisha Tokyo would be to have the system (Fig. 1) wherein if the data of the next page exists during the print of the present page, said printer driver notifies said printing apparatus of a print mode and a data structure of the next page as said structure information by said information sending means as taught by Canon Kabushiki Kaisha Tokyo in Col. 12 lines 49-57.

Therefore it would have been obvious to combine Okimoto and Canon Kabushiki Kaisha Tokyo to obtain the invention as specified in claim 12.

10. Claims 14 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okimoto (US 6449055 B1) in view of Takeda et al. (US 5845057).

Regarding claims 14 and 28, Okimoto does not disclose the system wherein if it

is possible to confirm that it is difficult to continue the print and an error will occur from said notified contents, said printing apparatus causes an error prior to printing said page.

Takeda et al. discloses the system wherein if it is possible to confirm that it is difficult to continue the print and an error will occur from said notified contents, said printing apparatus causes an error prior to printing said page (**Fig. 26; Col. 20 lines 26-46**).

Okimoto and Takeda et al. are combinable because the both incorporate a printing apparatus.

It would have been obvious at the time of the invention to combine Okimoto with Takeda et al.

The motivation to do so would have been to have the system wherein if it is possible to confirm that it is difficult to continue the print and an error will occur from said notified contents, said printing apparatus causes an error prior to printing said page as taught by Takeda et al. in Fig. 26 and Col. 20 lines 26-46.

Therefore it would have been obvious to combine Okimoto with Takeda et al. to obtain the invention as specified in claims 14 and 28.

Allowable Subject Matter

11. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

The prior art of record does not render obvious the unique combination: "a system wherein if it is possible to confirm that a printing operation which is being performed at the present time can be continuously executed from aid notification contents, said printing apparatus subsequently executes a process of the next page."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashan O. Patterson whose telephone number is 571-272-0597. The examiner can normally be reached on Mon - Fri 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ROP



**TWYLER LAMB
PRIMARY EXAMINER**



**EDWARD COLES
SUPERVISORY PATENT EXAMINER
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